The Humble Ancestor of the Tank Invented Centuries Ago

Armored Car Not a New Idea

British Officer Mentions Interesting Medieval Predecessors of Modern Machine

ONE of the most interesting features of Colonel J. F. C. Fuller's excellent work, "Tanks in the Great War, 1914-1918" (Dutton) is an account, with illustration, of medieval efforts to realize the principle of the modern tank. As the author points out, the knight himself, clothed in impenetrable armor, was a very formidable "tank" before the days of gunpowder. There are many historical instances in which a handful of knights routed and slaughtered great hordes of insurgent peasants.

The knight in armor disappeared as gunpowder was used with increasing effectiveness. Colonel Fuller gives the following sketch of the "war carts" and "war chariots" of the fifteenth and sixteenth centuries:

Medieval "Tanks"

"Conrad Kyeser, in his military manuscript, written between 1395 and 1405, pictures several 'battle cars.' Some of these are equipped with lances, while others are armed with cannon. A few years later, in 1420, Fontana designed a large battle car, and the following year Archinger another, to enclose no fewer than 100 men. All these cars were moved by means of muscle power, i. e. men or animals harnessed inside them.

"With all these carts the limitations imposed upon them by muscular motive force must have been considerable on any save perfectly firm and level ground, consequently other means of movement were attempted, and during the last quarter of the fifteenth century the battle car enters its second phase. In a work of Valturio's dated 1472 a design is to be found of one of these vehicles propelled by means of wind wheels. Ten years later we find Leonardo da Vinci engaged in the design of another type of self-moving machine. Writing to Ludovico Sforza he says:

"'I am building secure and covered chariots which are invulnerable, and when they advance with their guns into the midst of the foe, even the largest enemy masses must retreat; and behind them the infantry can follow safely and without opposition.'

Tank Operation Foreseen

"What the motive force of this engine of war was is unknown, but the above description is that of the tank of to-day, in fact so accurate is this description that Leonardo da Vinci, nearly 350 years ago, had a clearer idea of a tank operation than many a British soldier had prior to the battle of Cambrai, fourteen months after the first tank had taken the field."

Students of the Great War will find an abundance of interesting material in Colonel Fuller's exhaustive study of the British tank's contribution to the Allied victory. First introduced as an experiment at the Somme the tanks gained an increasing measure of appreciation and use, playing a particularly important rôle in the battles of Cambrai and Hamel.

The author foresees tremendous scientific and technical developments in the art of warfare in the future. He asserts that "99 per cent of victory depends on weapons"; and supplements this observation with the statement:

"All war on land, in the past, has been based on muscular energy; henceforth it will be based on mechanical."

Uses of the Tank

Developing his argument along these lines, he pleads vigorously for the full development of the possibilities of his favorite weapon, the tank. He sums up the significance of this powerful military machine in the following passage:

"To-day the introduction of the tank on the battlefield entirely revolutionizes the art of war in that:

"(1) It increases mobility by replacing muscular force by mechanical power.

"(2) It increases security by rendering innocuous the effect of bullets through the feasibility of carrying armor plate.

"(3) It increases offensive power by relieving the man from carrying his weapons or the horse from dragging them, and by facilitating ammunition supply it increases the destructive power of the weapons it carries."

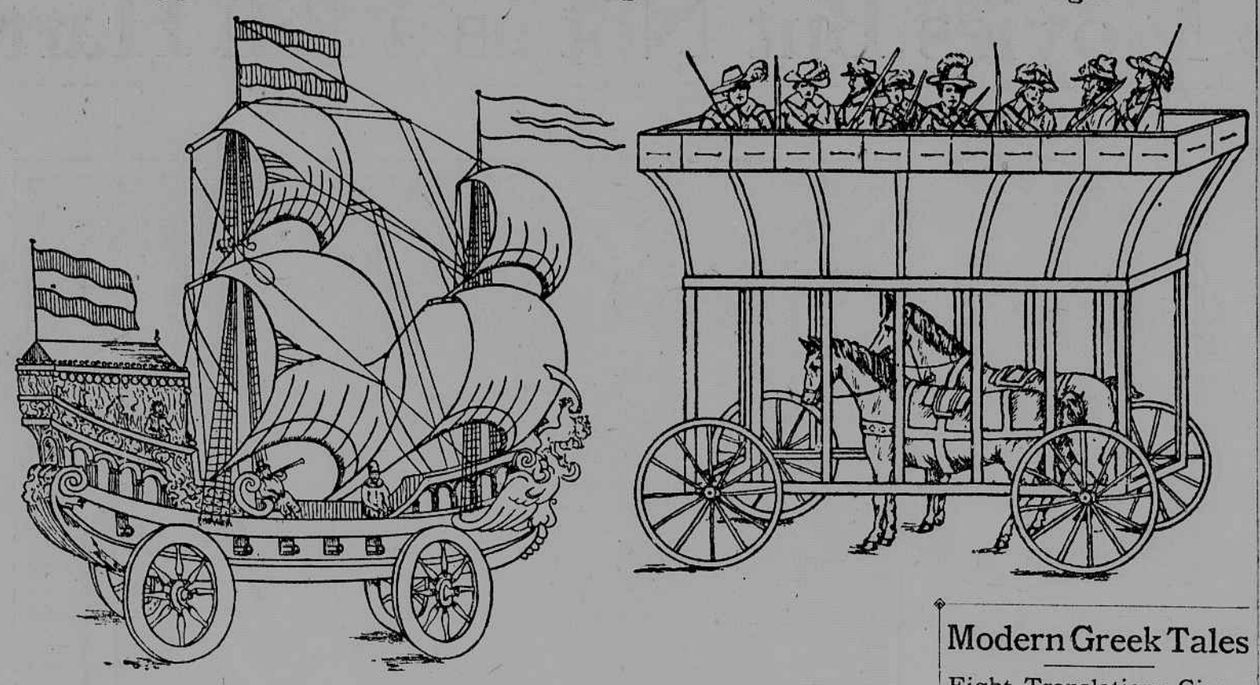
Colonel Fuller goes on to demonstrate the advantages of the tank in the "little wars" which are so necessary to the maintenance of the British Empire. The moral effect of tanks, supported by airplanes, upon recalcitrant Hindoos and Afghans, would, he believes, be excellent. By making full use of the latest mechanical devices in slaughter, the whole of India could be held in subjection by "a mechanical police force of 20,000 to 25,000 men."

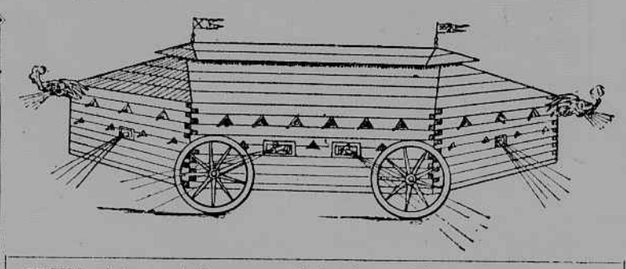
The author is not inclined to put much faith in the League of Nations, or in any other pacific scheme for eliminating war. In his own words:

Faith in "League of Weapons"

"War will be eliminated by weapons, not by words or treaties or leagues of nations; by weapons—leagues of tanks, aeroplanes and submarines—which will render opposition hopeless or retribution so terrible that nations will think not once or twice, but many times before going to war. If the civilian population of a country know that should they demand war they may be killed in a few minutes by the tens of thousands, they will not only cease to demand it but see beforehand that they are well prepared by superiority of weapons to terrify their neighbors out of declaring war against them."

Types of the "Treat 'em Rough" Cars of the Middle Ages





THE picture at the upper left shows Simon Stevin's landship, built in 1599. At the upper right is a Scottish war cart of 1456, and below is the Holschurer battle car of 1558. The illustrations are from Colonel J. F. C. Fuller's "Tanks in the Great War," published by E. P. Dutton

Church and Home

Story of Struggle Between Two Duties in Life

ANY problem of life that involves religion requires unusual skill in its treatment in a novel. The snares and pitfalls are many. So we opened Zephine Humphrey's "The Sword of the Spirit" (Dutton) with a secret prediction that the author would offend or amuse us. We apologize for our doubts as to her ability to handle great elements of a great struggle with a daring and yet completely successful examination and presentation. Her book goes through the mesh of creed and rite to the heart of humanity within and, capturing our attention at the start, carries us on through a shrewdly wrought argumentative plot to a conclusion that is logical, predestined in the journey of the narrative.

A young woman, Isabel Pyne, High Church Episcopalian, marries Herbert Lathrop, whose family is of the First Congregational Church in the city of Bridgehaven. At the very threshold of married life, even as the two are riding from the wedding service, the girl slips into her church to kneel before Father Hartly and receive his benediction. We perceive that a clash is bound to ensue, for the practical, not at all churchly Herbert finds no consolation in vestment and holy fire—will have no odor of sanctity in his home. Isabel, once established in their house, creates a hidden place of prayer in an abandoned room, where she hangs a crucifix on the wall. Herbert scoffs at her zeal, her unwavering loyalty to church and ritual.

A daughter is born, to die and leave Isabel more lonely than ever. In the mean time a young and fascinating curate, Percy Randolph, comes to St. John's. He is drawn to Isabel and she to him, for he reads her sorrow and loneliness, and she believes that she has found in him a spirit that welcomes confession. In a dramatic moment, in her secret little place of prayer, they feel the awakening of a love, or a first flame of love, that threatens to consume them, with the world, the church and all but the devil forgotten.

From that inflammatory hour on to the end of the novel we witness a slow turning of a tide, Herbert's love coming back to his wife. Finally they compromise on a home life not too worldly, not too unreal with intruding mysticism. They have found their via media of sane, reasonable living.

In "The Sword of the Spirit" one is assured of a masterly treatment of an extremely difficult subject. Zephine Humphrey moves her characters with the precision and the prevision of an expert chess player who sees victory ahead beyond many baffling conditions. We know of no recent novel on the problem of the church and the home and the human soul that surpasses it in its fidelity to a truth hard to discover.

Storming Society

"Counsel of the Ungodly" a Novel of the New Rich

IF IT makes you feel superior to laugh at the vulgarities of the nouveau riche you have a comfortable feeling awaiting you when you read "The Counsel of the Ungodly," by Charles Brackett (Appleton). For our part, we lost interest in the aspiring Miss Davison when she confided to her butler (a real Van Hoeven, temporarily out of luck, traveling incognito) that she had always longed to know "real" people. Her mother, whose shrewdness and enterprise had brought them from a mining town to Paris and thence back to a fashionable Long Island suburb, seemed a trifle more three-dimensional than the ladies of the set to which she cast imploring glances.

The story is sprightly and vivacious enough to perch precariously on the edge of improbability. When the beautiful young woman, so obviously superior to her coarse relatives, meets with reverses the butler throws off his disguise, reveals himself as her uncle and brings her into her kingdom of polite society. It is all done so lightly, however, that its snobbishness, like its improbability, is shorn of offensiveness. For those who long for society, with no means of obtaining it, "The Counsel of the Ungodly" gives charmingly the illusion of sophistication, wit and the great world.

An Open Letter to "X"

H. J. Massingham Proves Himself a Master of Style in Letters to an Unknown Correspondent

MY DEAR X: Whoever you may be, Mr., Mrs. or Miss X, you are one of the earth's fortunates to be the recipient of the delightful "Letters to X," which their writer has made public by the good graces of the house of E. P. Dutton. Your correspondent, H. J. Massingham, is a rare spirit and a master of prose whose screeds must be the despair and envy of others who write to you. X, do you sometimes give little prayers of thanks for the privilege of receiving this Massingham's epistles? The man is a stylist of the first order.

Of course, X, you may not agree with his notions of life and letters. His scholarship is without pedantry and his conversation is without reaction, but I feel that he is a trifle liberal within his aggressive "literary tradition." He is sufficiently modern to understand our present-day foibles and he lances them with a fine restrained irony. But he declines to admit, save by way of a gracious concession, that out of this turmoil of stupidity, prejudice and shallowness there may arise something that will carry civilization and literature beyond the stage reached by his favorite Elizabethans. And even as a Grub Street hireling I cannot grant the validity of his onslaughts against present-day journalism.

With illuminating certainty he renames our "futurist" poets "presentists" (which is so apt and so simple that I wonder why no one has thought of it before). He is a perfectionist and he quarrels with D. H. Lawrence (why, dear X, does he spell it "Laurence"?) for his inability to mold "the quick of Time" into flawless verse. And it is a shade unworthy to describe Ezra Pound as a "wretched poetaster," and to glorify Father John Banister Tabb at his expense. Why must our radical poets be impaled for their deviations from the practices of such later-day classicists as Sturge Moore, W. H. Davies and Walter De La Mare? If Mr. Massingham offers bays to Ralph Hodgson for his perfection in his chosen field, why should he withhold the laurel from "H. D." for achieving the same end in a field which may seem less productive?

I could go on endlessly scolding Mr. Massingham for his point of view and praising him at the same time for his discrimination, his humor and his intuitive feeling for beauty, but that is a matter for the individual reader. I shall not even analyze his snobbish flings at book reviewers; I think that he regards the function of journalism too narrowly and that he does recognize that the newspaper critic must write for an audience that must seem illiterate to a scholar of Mr. Massingham's attainments. And that to interpret present-day books to present-day readers' demands—but let it pass. After all, dear X, your correspondent's sins may be shriven for his honesty and for his extraordinary literary skill. Were you not aware of the hand of a master in such passages as this?

"God is quieter than the inviolable darkness, than cities of dead men, than peace and the fallen ashes of subterranean fires. He is so silent that could the sound of his quietness reach me, I should not hear the world if it burst like a rocket in space. . . . The quietness of God came like a cry upon the earth and the earth was beaten flat with it, and out of the desolation of all the agonies and passions and ideas and raptures since the beginning of the world, higher than the highest heavens, went up the thin blade of perfect and thanksgiving silence."

Agree with him or not, dear X, your correspondent is a mighty wielder of words. Would there were more like him!

The New World

America's Influence Upon England in 1700

NO TWO centuries in England's history exceeds in glamour of romance the two that ended with the year 1700, and the two Americas, North and South, had much to do in creating the great picture of rapidly unfolding drama. We have long looked for a book that should contain, in one volume, the essentials of trade development, new knowledge of the earth, and other minor but important factors, as they reacted on Great Britain during the period above defined. James E. Gillespie, Ph. D., instructor in history, University of Illinois, in his "The Influence of Oversea Expansion on England to 1700," which has been published recently by Columbia University, gives us vital data gleaned from a huge mass of scattered material written during and since the years from 1500 to 1700. His book is No. 207 in the scholarly series of monographs that have been issued since 1891 by Columbia University, edited by the university's faculty of political science.

This book reads like romance rather than like pure history, and yet it clings closely to facts. But what else could be expected when one finds himself carried back over the years, to be confronted by the steady arrivals at English ports of ships from all quarters of the globe and especially from the two Americas, bringing in wondrous tales of adventure, of strange lands and remarkable peoples, and legends of wealth hidden in forests and mountains and by sea and lakes? The stories of tobacco, sugar, coffee, the potato, come into this book, with the attendant contemporary records of popular curiosity concerning and subsequent use of these then strange plants and edibles. And, too, there were an immediate birth of new industries, a beginning of invention of better instruments for use in navigation, a stirring of missionary activity and, not at all the least important, a throwing of glorious lights across the pages of dramatists and poets. The chapter of this volume that treats the philosophy of the age—represented in "The Utopia," "The New Atlantic," and pages of "The Tempest"—forms a valuable addition to the records of English literature during the great years of Elizabeth and after.

This book will be welcomed by librarians in schools and colleges throughout the United States, and is sure of a cordial greeting by a little, but ardent band of scholars who center their attention on the period it covers.

Miss Minerva Again

EMMA SPEED SAMPSON continues the adventures of her Miss Minerva in a new series entitled "Miss Minerva's Baby" (Rielly & Lee). If matrimony seemed an indecorous conclusion for that tart and determined old spinster in the last volume, motherhood is an even more grotesque one at the beginning of this one. The latest volume depends less, however, on the experiences of Miss Minerva's belated motherhood than on the antics of some "cute" children and comic darkies.

Modern Greek Tales

Eight Translations Give a Picture of the Nation

BY NO better means could Demetra Vaka and Aristides Phoutrides give to the outside world a sympathetic understanding of the modern Greece they love than by opening the door to modern Greek literature. In "Modern Greek Stories" (Duffield) they have brought before English readers eight of the most famous of modern Greek short stories.

We have lost track of Greece since the days of her glory; we have forgotten that when her supremacy passed from her she still lived. How romantic have been her experiences since then, how hazardous and adventurous her national existence, is eloquently expressed in these stories. In a preface the translators give a brief presentation of the ceaseless struggles of modern Greece for her freedom, and this brief outline of her modern historical development gives shape and definition to the artistic development which these stories represent.

These eight stories present the life and point of view of a people, gentle, poetic and religious—who by the strange cycle of racial experience have returned to simplicity and un-self-consciousness. They are the tales of people who live close to the soil—people rich in imagination and wonder of the elementals with which they are brought continually face to face.

Seven are stories of the soil and one is a story of the sea. That one, "Sea," by A. Karkavitsas, the common tale of a seafarer's nostalgia for the sea, has a most uncommon power and lyric beauty. It is exquisitely simple and poetic.

In the stories of the soil are rich and lusty pictures of peasant life. They are the stories of a peasant nation, remote from urban sophistication. The colors of East and West, exotic and austere, mingle in them. They make a fascinating pattern of contrasting figures. The real disclosure of these stories, however, is not in any unexpected literary grace. These stories are for the most part childlike and naïve. Their eloquence and power lie in revealing the folk spirit of the modern Greek. Behind the simple and primitive Christianity of the Greek peer pagan figures—his old gods still weave in and out of all his modern thinking.

The Rheims Cathedral

Monsignor Landrieux is the author of "The Cathedral of Rheims: The Story of a German Crime," a very beautiful book, containing nearly 100 full-page plates, which E. P. Dutton & Co. announce for early publication.

Kluck and the First Marne

German General, Made Scapegoat for Failure, States His Case Against General Staff

By William L. McPherson

GENERAL VON KLUCK'S book ("The March on Paris and the Battle of the Marne, 1914"; Longmans, Green & Co.) differs from most of the controversial literature of the war, in that it was written before Germany's defeat was clearly indicated. It was completed on February 8, 1918, and the author says that the technical part of it is based on a memorandum drawn up by the chief of staff of the First Army in the winter of 1914-'15. Von Kluck was obliged to write circumspectly and he had no opportunity to reply directly to the reflections on his generalship made after the war by von Bülow, commander of the German Second Army; von Hausen, commander of the German Third Army, and others.

Blame on von Kluck

Von Kluck was retired in 1915, evidently having been made a scapegoat for the failure of the first Marne campaign. In that campaign the First Army had the leading rôle. It was on the right end of the German line pivoting on Metz and wheeling through Belgium and northern France to envelop the French and British armies. Kluck's task was facilitated by the faulty concentration of the French, which ignored the peril of an envelopment through Belgium. In his great wheel, which carried him from Liége, through Brussels, to the outskirts of Paris and then toward the Seine, he encountered little opposition. He couldn't envelop the British Expeditionary Army because Field Marshal French prudently retreated at top speed. General Smith-Dorrien played into von Kluck's hands when he halted with the Second British Corps to fight the battle of Le Cateau. But in spite of that blunder, made against French's orders, the British escaped the German trap.

The weakness and fluidity of the Allied defense on Joffre's exposed left flank really deranged the execution of the plan bequeathed to Moltke the younger by Count Schlieffen. Von Kluck got ahead so fast with the First Army that the Second Army couldn't keep up with him. When, therefore, the fortifications of Paris were reached, when an envelopment of the French left became impossible and the Schlieffen plan had to be modified into a breaking through operation against the French center, von Kluck's position was such that he couldn't well use his army merely as a shield to cover the flanks of the Second and Third armies. At any rate, he didn't use it effectively for that purpose. When he was attacked on his own flank and rear by Maunoury, he pulled back two of his army corps which had been coöperating with von Bülow, and thus helped to distend and dislocate von Bülow's front, which was eventually broken by Foch.

A Born Fighter

Von Kluck was a fighter by temperament and impatient of direction. He resented the General Staff's original order subordinating the First Army to the Second. He was very critical of decisions coming from the high command at Luxemburg. Thus, after the idea of driving the French in a southeasterly direction from Paris was adopted, a message was sent to von Kluck during the night of September 2-3 which gave him this specific instruction:

"The First Army will follow en echelon behind the Second Army and will be responsible for the flank protection of the armies."

Von Kluck says that he thought this project of driving the French southeast "would be a difficult and risky undertaking."

He reported to Luxemburg on September 4 that it would be impossible for the First Army to follow en echelon behind the Second and that, instead, he had ordered it to continue its advance.

Neither von Kluck nor German General Headquarters suspected the presence of Maunoury's army northeast of Paris. Kluck says it was the High Command's business to keep track of the new French concentrations. But the High Command had expressly enjoined the leader of the First Army "to take steps to prevent any new enemy concentration in the zone of operations."

Von Kluck was able to parry Maunoury's thrust and to fight the latter to a standstill. But to do so he had to break away from von Bülow. On the eve of a tactical success against the French Sixth Army, the whole German strategical situation became confused, and a retirement to the Aisne seemed imperative.

In the retreat a gap of thirty miles was left open between von Kluck and von Bülow. On the Aisne the First Army was again put under von Bülow. Von Kluck was marked for retirement by von Falkenhayn, who was then acting, under cover, in von Moltke's place.

The First Army marched well and fought well. Among its corps commanders were von Linsingen, von Marwitz, von Quast and Sixt von Arnim, all of whom became later heads of armies and groups of armies. The First Army fought better, on the whole, than any other of the German armies in the Marne campaign. That campaign failed even more decisively in Lorraine, before Verdun and south of Rheims than it did on the Ourcq.

Blames the High Command

Von Kluck says justly that the High Command, under Moltke, was lax and hesitating. He also says that for success on the German right wing several more divisions were needed. That is a sound conclusion, concurred in by General Baron Freytag-Loringhoven, Assistant Chief of the General Staff, perhaps the fairest and most competent of German military critics, who also put his views in writing before the end of the war.

Social Problems

Henry F. Cope Suggests Roads to Democracy

HENRY FREDERICK COPE'S "Education for Democracy" (Macmillan Company) is a rather random essay on the social problems confronting us to-day, a little too wordy, but redeemed by an unusual fairmindedness and an ability to face the truth without flinching.

Mr. Cope points out that there is not much use in having political democracy if there is no economic democracy. The way to bring about the latter forms the subject of his book.

On the whole, the work seems to be a compilation of existing theories rather than a distinct contribution; unless indeed Mr. Cope's frankness in discussing such matters as the use of the Bible in public schools and the problems of world living as distinct from the old order of national living is in itself a contribution to the usually cant-ridden patter of educators on live topics.

Mr. Cope blames the present social unrest on the fact that we have neither prepared our young for democracy nor practiced it ourselves, and that during the World War we suspended it altogether. But the remedy for the unrest and the defense against Bolshevism, he argues, lies not in restricting democracy but in increasing it. The public school is the way; it is the people who must supply the will.

Modern Women and War

Harriot Stanton Blatch Expresses Well the Feminist Viewpoint

IT SEEMS now an act of supreme courage and faith to launch, against the adverse current of inertia, a book that has for its theme the problem of war and the reconstruction. But "A Woman's Point of View" (The Woman's Press), by Harriot Stanton Blatch, is informed with so strong a conviction and so keen an intelligence that it is likely to make its way even against the common weariness.

It is one of the ironies of the human spectacle that war, which is everywhere waged ostensibly to protect the women and children, makes them its cruelest victims. Now that the hope of an impossible millennium is abandoned, now that men have waged a tragic war and an even more tragic peace, Mrs. Blatch feels that it is time for the woman to speak.

In the early days following the armistice Mrs. Blatch went abroad to see that rebirth which was all the bright hope of the war. She saw only apathy and disintegration. There was a reduction in morale and energy. Reviewing the loss in morale and integrity through the war, the morbid psychology resultant from it, the priceless humanistic advances wiped out, it could not fail to be borne in on woman that war can never be her business. She whose business it is to bestow and cherish life can have no part in its folly. War is the great masculine delusion. When she acquiesces in it she obeys the dictates of her world, whose opinion is masculine.

By the light of the four years' conflagration Mrs. Blatch saw social conditions newly illumined. And her feminism, which has been so vigorously parliamentarian, found a wider application. Perhaps not for the first time have the principles of feminism been given so wide an application, but in American feminism at least the work is new.

With an admirable clarity of mind Mrs. Blatch goes back for the roots of the war not to be endless wranglings over national boundaries or to imperial ambitions, but to the condition of women and children, and to the grade of each country's education. In Germany, she knew from her careful prewar observation, the subjugation of women was wellnigh complete. "The shackled woman endowed her nation with slave qualities. To suppress the sons of her womb was not difficult." Her sons were submissive to their ruling classes as she was submissive to her menfolk. In both, all of education went to implant the ideal of obedience. What capacity had she, when free women had no courage for the consciousness, to voice her protest against war?

In the French schools, the French education scheme, Mrs. Blatch found the forcing grounds of national character.

"The French school trains the child to be self-centered and nation shy of foreign relationships. The child does not know what a round game is. In the court yard, where it goes with its class once or twice a day, it plays by itself with a hoop, a skipping rope, a ball. . . . The tiny babies of three to five are drilled as egoists. Each acts alone. They do not even dance hand in hand in circles. Much ingenuity must be used to keep them apart."

All that a child is taught is of and about France. "There are not for them the fascinating myths of Greece and Rome and the Norseland. They recite long lists of French kings with the dates of their reign. They love France to excess because no other land is real to them. The world does not unroll before them, only the maps of France. Each department they know, each river, each bay and headland. France is the universe in the eyes of her children."

This is the clew to the intense and narrow patriotism of the French. This the key to their national complex—isolation. The dreariness of French education, its aridity and joylessness result in curious individual intensities. The free school system for girls furnishes a clew to French feminine character.

"From half-past eight in the morning to five-thirty, six days, week after week, for ten months each year, these girls, thirteen to seventeen years of age, the time of crisis in their lives, bend over their tasks. They are silent, very silent, but we know there must be turbulence under the placid surface."

And these find outlet in a precocious instinct for amour, in the surcharged femininity for which French women are famous.

She found in the predominantly masculine tone of English prewar education the key to the arrogance and inflexibility which so often characterize the Englishman. The corporal punishment on which English schools prided themselves did much to rob the English boy of initiative, as compared with the American boy, who is trained chiefly by women.

All education has been to make the art of living together easier. Men have only imperfectly understood this, and they have given education strange shapes to fit their passion for aggression. Women, with what means they have, have kept the ends of education more clearly in view.